# Results: Describing the scale and composition of calls for police service: a replication and extension using open data

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# 1 Main results

Table 1: Breakdown of frequency counts and time spent on each demand type. Total deployed time is the sum of the time on scene and response time.

| Demand type | Count | Count (%) | Time on scene (%) | Total deployed time (%) |
|---|---|---|---|---|
| community | 14466 | 5.59 | 5.06 | 5.15 |
| crime | 114800 | 44.36 | 51.40 | 50.55 |
| health | 19873 | 7.68 | 7.10 | 7.19 |
| proactive | 15663 | 6.05 | 3.89 | 4.04 |
| quality of life | 54702 | 21.14 | 14.66 | 15.54 |
| traffic | 32147 | 12.42 | 15.63 | 15.27 |
| unclassified | 7135 | 2.76 | 2.25 | 2.26 |

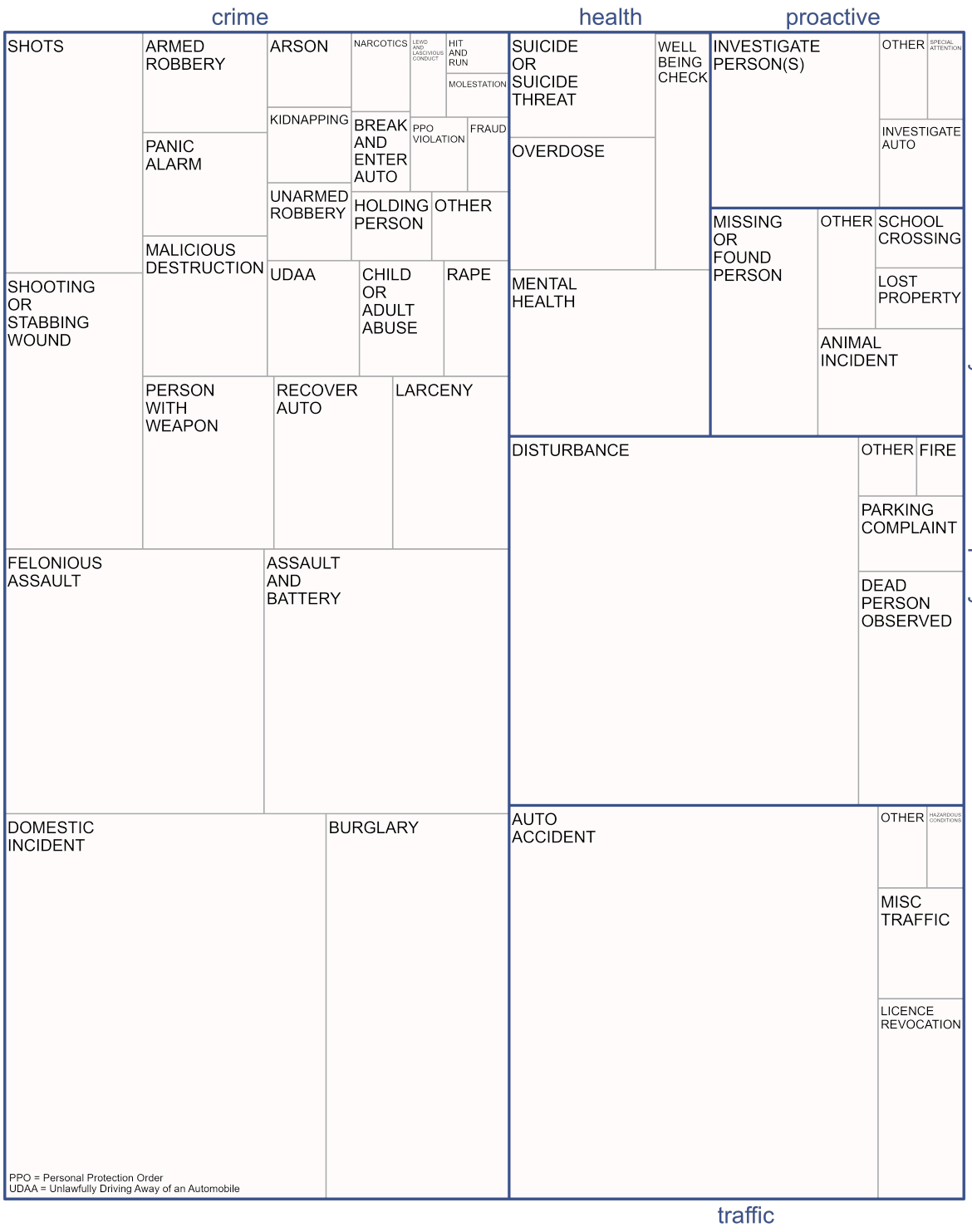


Figure 1: Proportional breakdown of police time consumed over the year, defined as time spent on the scene, for each call category.

Table 2: Descriptive statistics of minutes spent on scene for each demand type classification.

| Demand type | Mean | Median | Min. | Max. | SD |
|---|---|---|---|---|---|
| community | 40.0 | 24.6 | 0.1 | 847.7 | 48.0 |
| crime | 51.0 | 30.4 | 0.1 | 987.0 | 64.1 |
| health | 40.9 | 29.1 | 0.1 | 897.4 | 45.2 |
| proactive | 28.4 | 16.5 | 0.1 | 907.9 | 47.4 |
| quality of life | 30.5 | 19.7 | 0.1 | 885.6 | 41.1 |
| traffic | 55.0 | 30.0 | 0.1 | 901.1 | 65.0 |

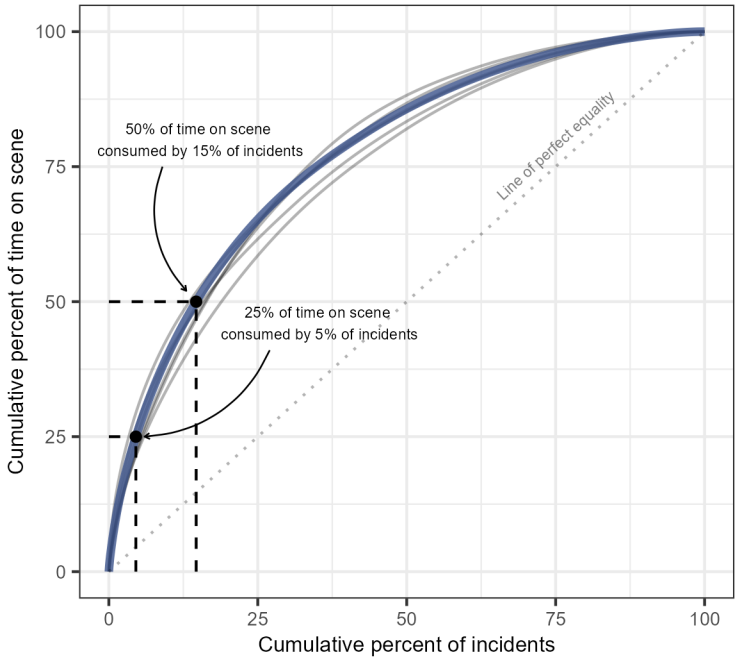


Figure 2: Lorenz curve for time spent on scene across all calls (in blue). Lorenz curves in grey for each of the six demand classifications.

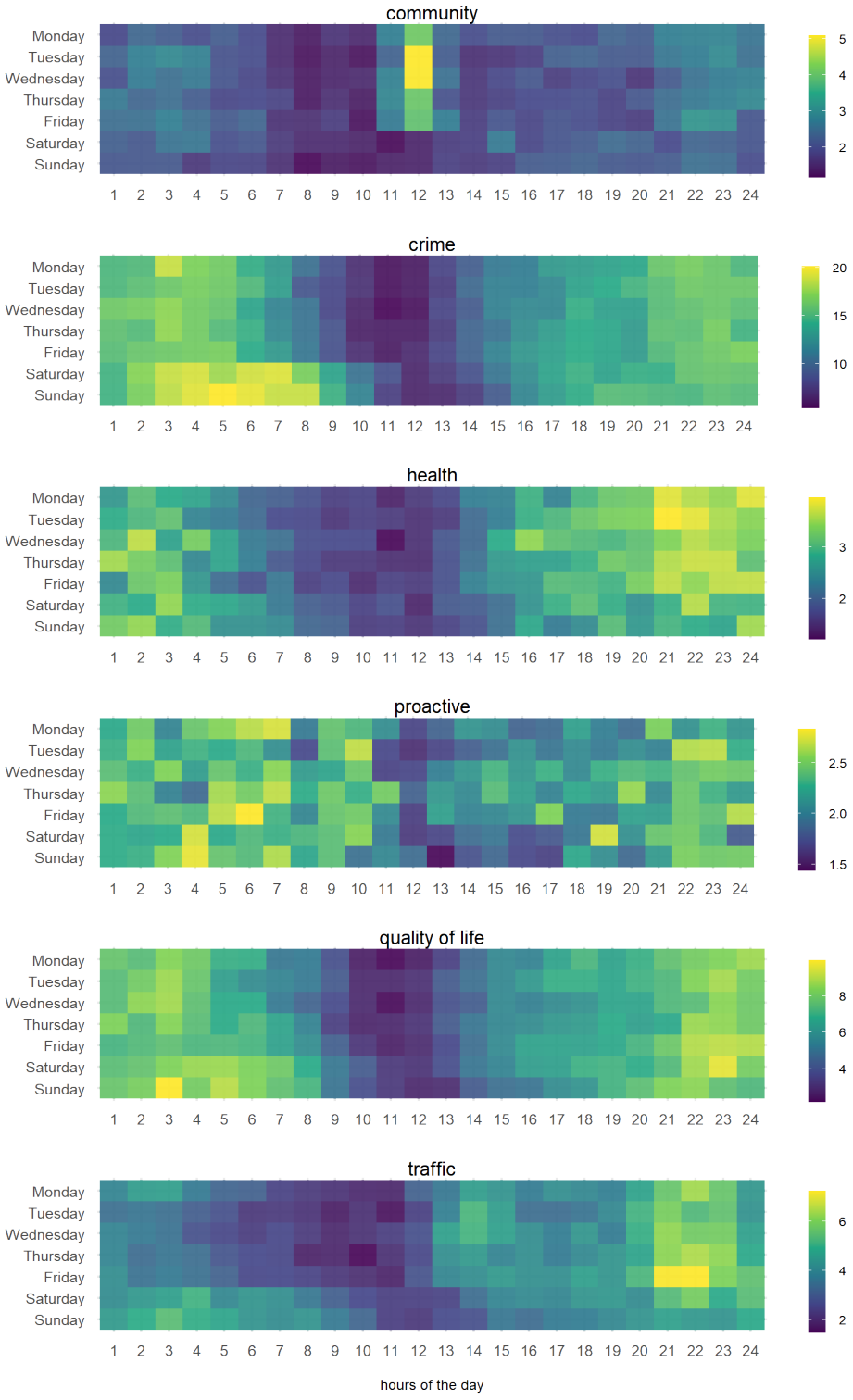


Figure 3: Mean call counts by day and hour, for each demand type.

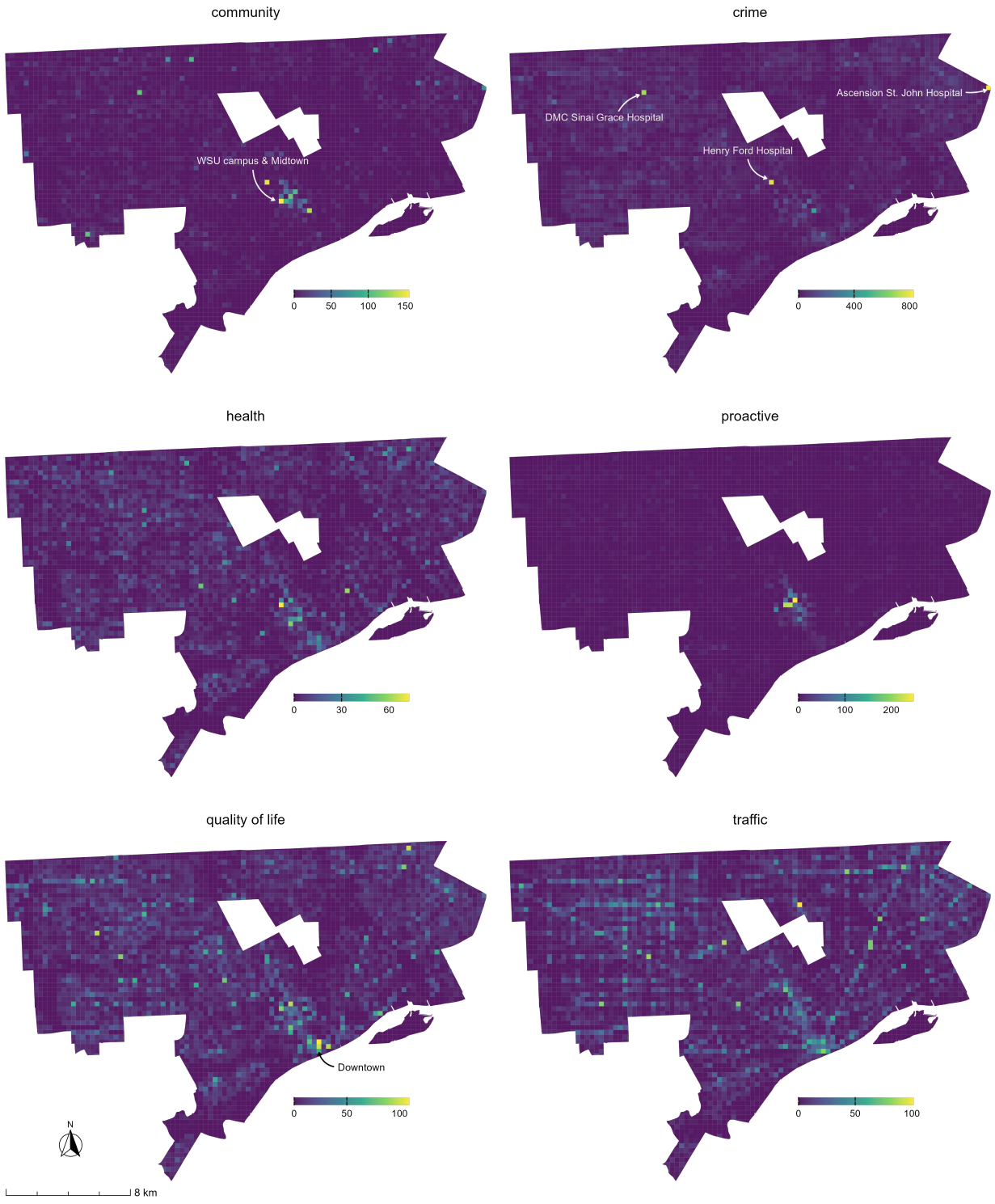


Figure 4: Spatial patterning of the aggregate time spent on scene (in hours) for each demand type.

# 2 Appendix

## 2.1 Raw count maps

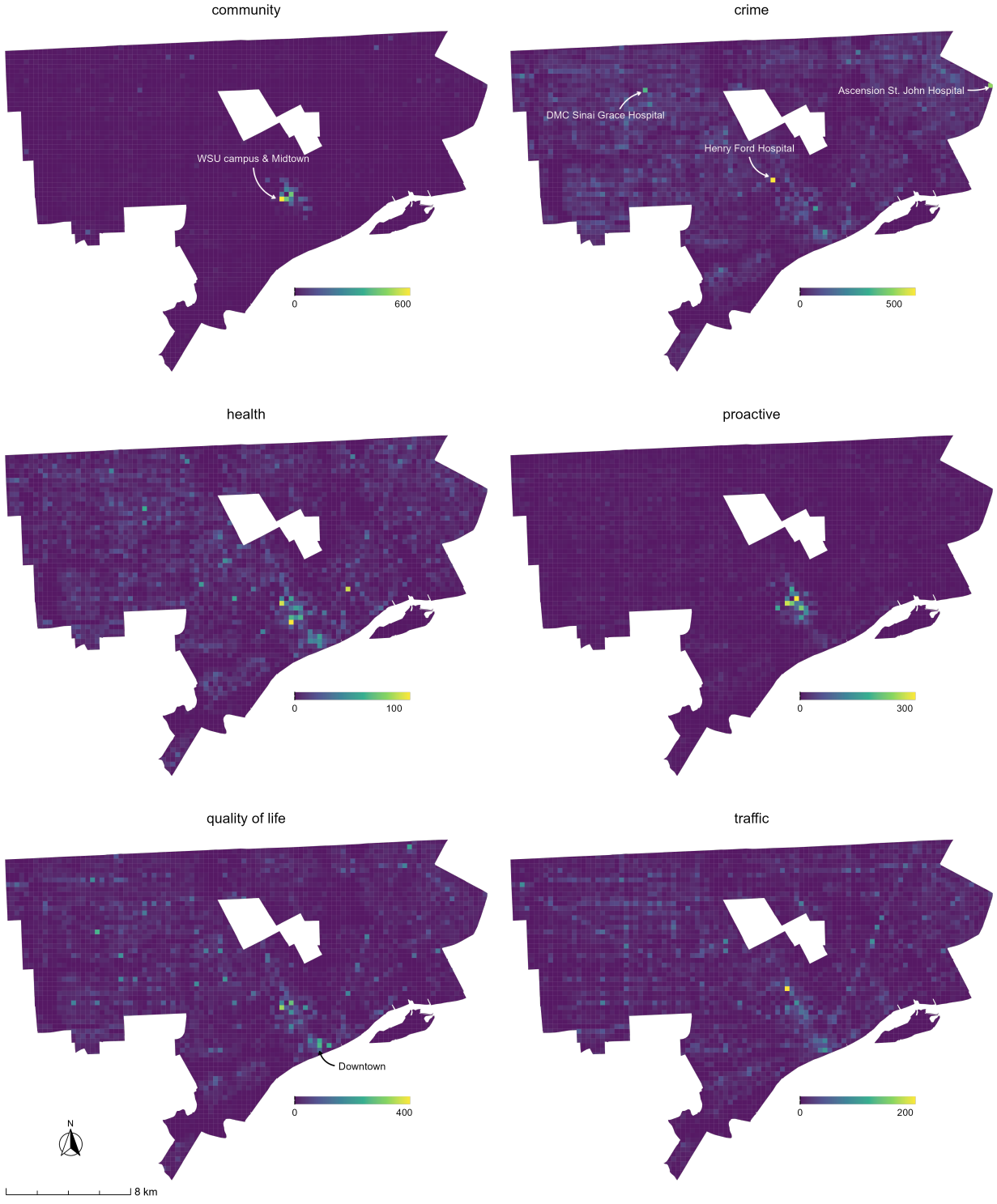


Figure 5: Spatial patterning of the raw call counts for each demand classification

## 2.2 Time on scene distributions

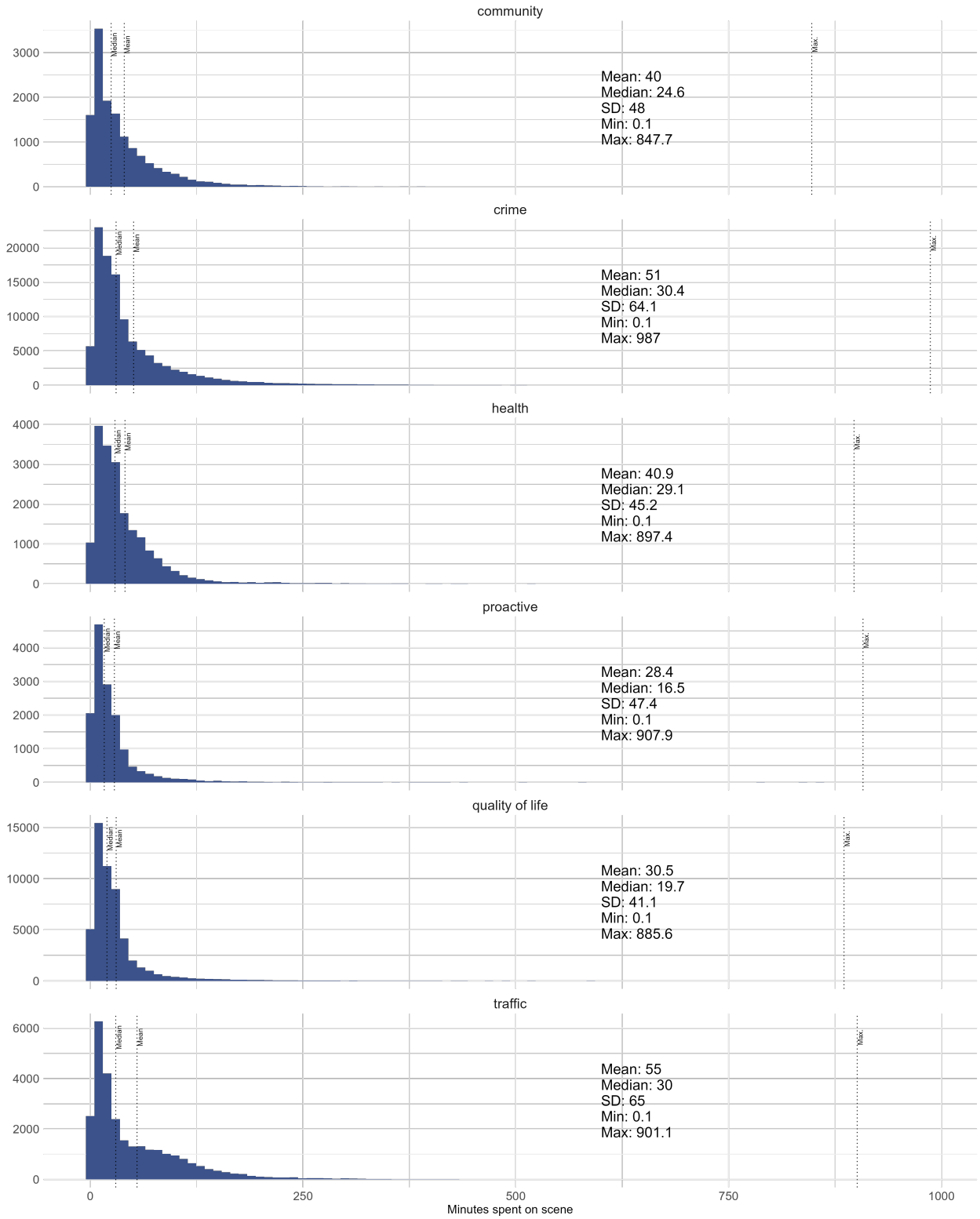


Figure 6: Distribution and descriptive statistics of time spent on scene by demand classification at the call level.

# 3 References